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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,421	05/31/2001	Naotake Mohri	Q64554	8462

7590 03/02/2004
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

PADGETT, MARIANNE L

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,421

Applicant(s)

Mohri et al

Examiner

M.L. Padgett

Group Art Unit

1702

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 8/6/03

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-18 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-18 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

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1. Applicant has asserted without support (specification or prior art) that the relatively modified term “simple substance” means atom or element (page 18, response August 6, 2003), but changes based on this unsupported assertion open the question of New Matter. However, as all the changes with this respect for this part of the deposit, appear to be the elimination of any option other than use of metal carbide(s) i.e. deletion of the alternative simple substance = unlimited types of powders, this is within the scope of the original disclosure.

2. The amendment filed August 6, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The part of the applied powder now labeled component (a) potentially has ambiguous New Matter. The phrasing “a ferrous-family metal powder or a non-ferrous powder” is from the original wording, however “each of the metal powders” requires the non-ferrous-family powder to be metal, which is not required by the original language, which is inclusive of all powers not of Group VIII B (ferrous family), but does not necessitate metal. Applicant has failed to provide any support for why the range should or is limited to other metals, especially as the definition equating this powder with treatment target (substrate) composition does NOT limit the type of substrate treated. The example on page 20 of A1 alloy is not sufficient to support the change to a new range of all metals, unless other clear support can be provided.

Applicant has also changed “elute” to “melt”, which are not synonymous terms. While eluting can include the process of melting to achieve elution, i.e. extraction or removal of the

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material eluting, other means such as vaporization, etc. may occur, hence explanation of why "melt" is necessitated and supported, should be provided, otherwise it must be considered to encompass New Matter.

Applicant is required to cancel the new matter in the reply to this Office Action.

3. The change of "burned" (which originally replaced "preliminary sintered") to --heated--, is acceptable with the citation and discussion of page 21, as discussed on page 19-20 of the August 6, 2003 response.

4. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. See discussion above in Section 2.

5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As noted above, component (a) is ambiguous as claimed, as to whether it may be any powdered material or must be a metal (ferrous or non-ferrous family).

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 6, 8, 11, 12-14 and 21-24 of U.S. Patent No. 6,602,561 B1 in view of Saito et al (08-300227 A) discussed in Section 4 of Paper No. 6, mailed April 15, 2003.

The patented claims have all of the required conditions and effects of the present claims, where in the processes/devices component (a) corresponds to the "binder" in the patent; and the second component (b) corresponds to the hard material, as metal carbides fit both descriptions, and it use in the electrode is the same. It would have been obvious to one of ordinary skill in the art to employ metal carbide + metal combinations as claimed given teaching suggested by Saito et al (227A) to employ WC + Co powder in analogous electrodes due to their demonstrated desirable use for such products and procedures, their known thermal characteristics, and use of temperature that almost overlap (1100°C vs. less than 1100°C, which is insignificantly different), where depending on the translation, "temporarily sintered" or lower than the sintering temperature are the taught effects/requirements.

8. Claims 1-3 and 7-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saito et al (08-300227 A) as discussed in Section 4 of Paper No. 6.

While Saito et al (227 A) does not discuss the dubiously supported melting of component (a) to form the electrode, the varied translations of their process corresponding to the meaning

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supplied by applicant for their effect of incompletely sintered, and the exemplary WC + Co treated at 1100°C is consistent with taught powder combinations (page 20, lines 21-24) and taught treatment temperature of 400-1100°C (page 22, lines 1-2 or the double negative of the next 3 lines which appears to be saying not to use temperatures above approximately 1100°C). These temperature ranges as taught by applicant appear to apply too all their taught powder combinations, but would have been considered especially applicable to the explicitly listed materials, hence lacking concrete evidence to the contrary, it must be considered that the Saito et al (227 A) process inherently produces the effects as claimed. Note the PTO cannot test materials to determine the actual effect for particular compositions, and where effects are not explicitly detailed comparative evaluation is problematical. Also, given the apparent translation, problems between Japanese and English for critical terms for these processes, as evidenced by the previously discussed versions of Saito et al, and applicant's difficulty in providing accurate terminology in this case, a scientific showing of what occurs when or at what temperature to what materials to produce intended/claimed effects, might be desirable.

9. Claims 4-6 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (227 A) as applied to claims 1-3 and 7-12 above, and further in view of Mori (6-246,542 A) or Inoue (63-210,280 A) or Saito et al (US 6,086,684), as discussed in Section 5 of Paper No. 6.

10. Claims 7-9 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (227 A) as applied to claims 1-3 and 7-12 above, and further in view of Kagaku et al (10-225,824) or Saito et al (10-512 A) or Toshiba Tungaloy Co (5-261624 A), as discussed in Paper No. 6, mailed April 15, 2003, Section 6.

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11. Applicant's arguments filed August 6, 2003 and discussed above have been fully considered but they are not persuasive.

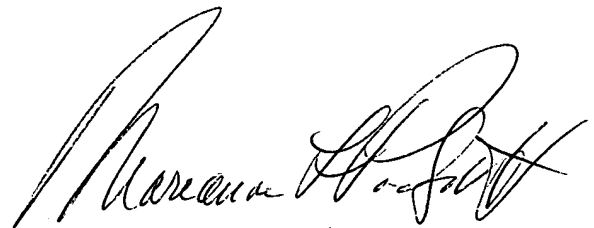
12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication should be directed to Marianne L. Padgett whose telephone number (571) 272-1425 on Monday-Friday from about 8:30 a.m. to 4:30 p.m.; and fax phone number is (703) 872-9306.

M.L. Padgett/dh
February 27, 2004

March 1, 2004



**MARIANNE PADGETT
PRIMARY EXAMINER**